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INTERNATIONAL APPLICATION PUBLISHED UNDER

(54) Title: A SYSTEM FOR THE TRACKING AND MANAGEMENT OF TRANSACTIONS IN A PIT AREA OF A GAMING ESTABLISHMENT
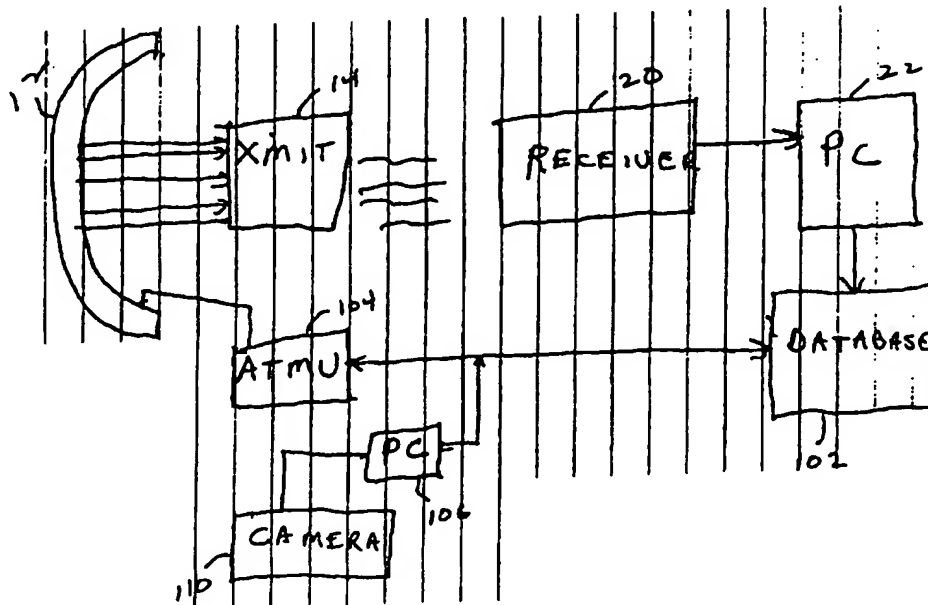
(57) Abstract

A system for the tracking and management of transaction ATMS in a pit area of a casino is provided (104). The ATMS is automatic and can also be adapted to be used as a bet recognition system as well as a surveillance system (110). The tracking system provides for increased functionality over known systems and reduces the paper-tracking and other activities required in typical casino operations.

A SYSTEM FOR THE TRACKING AND MANAGEMENT OF TRANSACTIONS IN A PIT AREA OF A GAMING ESTABLISHMENT

5   **FIELD OF THE INVENTION**

The present invention is directed toward a tracking system for gaming transactions in the pit area of a gaming establishment and more particularly to an automatic player tracking and table game accounting system utilized in the
10   pit area of a casino.

BACKGROUND OF THE INVENTION

In an analogy to frequent flyer programs that have been introduced by various airline carriers, oftentimes
15   casinos provide frequent player incentives to casino players who play certain games at high betting levels. For example, a player bets at a certain dollar level (perhaps $100). To encourage continued betting at this level, a fraction of a theoretical win or a portion of the amount
20   the person is playing will be applied to other activities within that particular organization.

A casino owner would like to track and manage transactions and player marketing data in a pit area of the casino. If a person plays a certain amount of money on a
25   game like blackjack, there will be discounts provided for the hotel room or there may be a free hotel room.

Cards with magnetic strips or punched holes are used in the gaming tables of the pit area. The cards are typically utilized for tracking of players and their
30   transactions within the casino.

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Typically, a system for tracking transactions in a pit area of a casino is a manual paper-based one. In such a system, an employee in a pit area, typically the pit boss, writes down the betting levels called the bet rating of the players. The pit personnel must spend a considerable amount of time recording the transactions for later entry by the pit clerk. The bet rating is defined as the pit boss' best guess as to the player's betting level over time. This double entry results in errors and delays. Additionally, pit personnel spend an inordinate amount of time ensuring that proper credit is given to the respective players. Therefore, known manual systems are cumbersome and do not provide for true two way interactive performance.

In existing automated slot machine tracking systems, actual betting transactions in the gaming area are tracked. In the table gaming area of the casino (blackjack, craps and roulette) the betting rate of a player over a particular period of time is recorded manually as opposed to being transaction based. The actual transactions presently are not being recorded by the pit personnel.

Accordingly, what is needed is a transaction tracking and management system that is two way and provides for real time interactivity. The tracking and management system should also be completely automatic and should eliminate the paper associated with bet rating and the like that is required in known systems.

The tracking and management system should be one which is readily adaptable to be utilized with existing casino databases to assure a seamless and integrated information system. The tracking and management system should also

5   allow the personnel within the casino area to be free to perform other activities besides physically recording the transactions. It would be useful to provide a system in which the personnel would be able to interact more readily with the players. Accordingly, the present invention

10   satisfies such a need. In phase one of the invention, we replace the paper-based rating and game accounting systems with fully automated real time systems. In phase two, fully automated bet by bet recording eliminates the need for pit personnel to watch and rate the player's action.

15

SUMMARY OF THE INVENTION

An automatic tracking and information management system (ATMS) is provided that automatically determines various player transactions associated with a pit area of

20   a gaming establishment. The ATMS includes an automatic tracking and management unit (ATMU) which transmits and receives information between all gaming tables in all pit areas and the gaming establishment database system. The ATMU provides for the interactive determination of various

25   transactions within the pit area. Through the automatic tracking and management system the manual paper tracking activities associated with the pit area are eliminated, thereby freeing pit personnel for other tasks.

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BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a block diagram of a first known tracking system for a pit area of a casino.

Figure 2 is a block diagram of the tracking system of Figure 1 utilized with one gaming table.

Figure 3 is a block diagram of a second known tracking system for a pit area of a casino.

Figure 4 is a block diagram of a third known tracking system for a pit area of a casino.

Figure 5 is a block diagram of the automatic tracking and management system (ATMS) for a pit area of a casino in accordance with the present invention.

Figure 6 is a diagram of an automatic tracking and management unit (ATMU) in accordance with the ATMS of Figure 5.

Figures 7 and 8 are flow charts showing the operation of incoming and outgoing player transactions in accordance with the ATMS of Figure 6.

Figure 9 is a flow chart tracking various transactions of a pit area in accordance with the ATMS of Figure 6.

Figure 10 is a flow chart showing the tracking of bankroll transactions in accordance with the ATMS of Figure 6.

Figure 11 is a flow chart showing the tracking of a database synchronization in accordance with the ATMS of Figure 6.

Figure 12 is a block diagram showing a gaming table coupled to the ATMS of Figure 6 including means for recognizing bets.

Figure 13 shows a diagram of a stack of bar-coded casino chips.

DETAILED DESCRIPTION OF THE DRAWINGS

The present invention relates to an improvement in the tracking of transactions in a casino. The following description is presented to enable one of ordinary skill in the art to make and use the invention and is provided in the context of a patent application and its requirements. Various modifications to the preferred embodiment will be readily apparent to those skilled in the art and the generic principles herein may be applied to other embodiments. Thus, the present invention is not intended to be limited to the embodiment shown but is to be accorded the widest scope consistent with the principles and features described herein.

Figure 1 is a block diagram of a first known tracking system for a pit area 10 of a casino. What is meant by a pit area is an area in which a variety of games are played, including blackjack, roulette and the like. In the pit area 10 there are included a plurality of gaming tables 12. Located on each of the gaming tables 12 typically is a transmitter 14 which provides signals to a receiver which is part of the database system in the casino. There is also a pit podium area 16 in which a pit terminal 20 is

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located. Pit personnel 18 determine the transactions being performed by the various players.

Figure 2 is a diagram of the tracking system 10 shown coupled to one gaming table 12. As is seen from Figure 1, there are several gaming tables 12 that are coupled within the tracking system 10 to provide information therefrom. A transmitter 14 at the gaming table 12 provides a signal (typically of radio frequency) to the receiver 20 which is located remotely in the casino offices. That signal is then provided to a personal computer (PC) 22 which in turn provides a signal to the casino database system 24 indicating the particular transaction.

The casino database system 24 then takes that transaction information and provides it to the pit terminal 23. The pit personnel 18 (shown in Figure 1) are in the pit area to do a variety of tasks, (1) to provide security to the games, (2) to watch the transactions for betting and transaction levels and the like, and (3) to provide an interaction with the players to allow them to be comfortable in the environment. Since the pit personnel have to observe transactions by observing the monitors on a continuous basis, their ability to interact with the players is severely diminished.

In addition, this system is not bidirectional, that is, neither the pit personnel 18 nor the player really has any ability to change the betting levels of any transactions of the player. Finally, this system requires manual recordation of the betting to provide some type of

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player tracking and incentive awards. Accordingly, this system can give rise to some disputes and may not be completely accurate.

Figure 3 shows a second known tracking system 10'
5   which is very similar to Figure 1 except that at each gaming table 12' there is a credit card terminal 26' in which there is a slot in which a tracking card can be run through. In this type of system, a player comes to a gaming table, provides the pit personnel with his/her
10   tracking card. The pit personnel 18' place that tracking card into the terminal and the player can play until the player wishes to leave. Thereafter, the pit personnel 18' go back to the terminal and log the player out of the gaming table 12'.

15   The problems with this kind of system are (1) there is limited player interaction with the dealer/pit personnel. In addition, (2) this does not eliminate the paper rating slips that are required, and (3) because the player has to wait to be checked out of the game, they can be
20   dissatisfied with having to wait for this service. Finally, the tracking system 10' still requires the manual betting rate system as described in the tracking system 10 of Figure 1.

Figure 4 shows a third known tracking system 50. In
25   the tracking system 50 there is a still a paper-based system that automates the manual paper system of the other two known systems. The tracking system 50 includes a device 52 that comprises a printer 54, a scanning reader 56 and a

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magnetic reader 58. In the tracking system 50, the player would provide the pit personnel with a card which would be passed through the magnetic reader 58. The device 52 is coupled to a personal computer (PC) 60. The personal

5   computer 60 in turn is coupled to a database system 64 associated with the device 52. The printer 54 would print a paper 62 which would include a mark (a circle or the like) that provides information concerning the player transactions. That information would then be provided to

10   the scanning reader 56. The player transaction information then passes from reader 56 through the PC 60 to a separate data base which is not related to the casino database.

There are two problems with the tracking system 50, (1) instead of eliminating paper it actually adds an

15   additional sheet of paper and still requires the manual tracking of bet rates. Secondly, because the tracking system requires its own database, this tracking system 50 would add considerable cost and complexity to an existing casino tracking system.

20   None of the above-identified known transaction tracking systems provide for automatic tracking of various transactions in a pit area of a gaming system. In addition the two known manual tracking systems shown in Figures 1 and 3 do not provide for management of the various player

25   transactions to determine betting patterns and the like. Finally, the third known system, although providing some management functions, is still essentially a manual system and can potentially add significant cost and complexity to

the overall tracking system because there is a separate database associated therewith.

Accordingly, an automatic tracking and management system is provided in accordance with the present
5   invention, that allows the pit personnel to have more personal contact with the players and allows for automatic tracking of various transactions in the gaming area.   In addition, through the use of a system in accordance with the present invention, interactive changes can be made in
10   the pit area.

Finally, through the tracking and management system of the present invention the pit personnel no longer have to be concerned with time-wasting paper tracking and accounting systems. The tracking and management system is
15   designed to be utilized in conjunction with an existing casino database to minimize any changes associated therewith.

Figure 5 illustrates the automatic tracking and management system (ATMS) 100.   As is seen, the casino
20   database 102 is coupled to an automatic tracking and management unit (ATMU) 104. The ATMU 104 in turn is also coupled to a PC 106, which can provide casino surveillance and act as a terminal emulator.   The ATMU 104 is also coupled to the network. This connection can be made via
25   Ethernet, token ring, RF signal or the like.   Through the ATMS 100, tracking and management of different transactions can be provided that is automatic, more accurate and more

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accessible than previously known systems.   A key component
to the operation of the ATMS 100 is the ATMU 104.

Figure 6 describes the ATMU 104 module, which includes
a screen 108 for viewing various transactions in the pit
5   area.   The screen 108, in a preferred embodiment is a
touch-screen.   However, one of ordinary skill in the art
readily recognizes that a keyboard, mouse or other device
could be used to input information and/or to modify the
information on the screen 108 and their use would be within
10   the spirit and scope of the present invention.   The screen
108 of the ATMU 104 as shown comprises a plurality of icons
120 which in this embodiment indicates the betting level of
each player at the table.   In addition, the screen also
contains information about the players, such as their
15   names, addresses and the like, shown generally at 122.

The information on the screen can be changed and
customized for a particular player's pattern.   Through
standard techniques, information can be changed and
configured to describe a particular transaction.

20   The ATMU 104, in a preferred embodiment, also includes
an ethernet port 124 which is coupled to the casino system
database 102 and an RS485 port 122 which is coupled to card
readers 126.   Further, in a preferred embodiment the ATMU
104 also includes a magnetic strip reader which is utilized
25   to read cards with magnetic strips and a slot for reading
hole-punched cards.   Finally, in a preferred embodiment,
the ATMU 104 includes a CPU, memory, a hard drive, various
computer programs for allowing the operation of the various

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elements and an application program to provide for automatic tracking and management of transactions in the pit area of the casino.

Referring back to Figure 5, an enhancement to the ATMS 100 of the present invention is the ability to now provide instant surveillance. In a preferred embodiment, there would be several of these type systems throughout the casino system. As is seen, a camera 110 is connected with the pc 106. Through the use of ATMU 104, pictures of the players could be generated instantaneously on a properly equipped pc 106 and transferred throughout the system.

The advantage of this type of surveillance is that in many instances there may be government regulations that require that when some maximum amount (i.e.,$10,000) is traded in one day by one individual at one casino, that must be reported to the government. One of the issues associated with this is that an individual that might attempt to transact large amounts of money in a single casino and also may not want his or her identity to be revealed. However it is known that in some cases even though the player was performing an illegal act by not reporting the transaction, the casino could be held similarly liable and could, therefore, lose it's license. Hence it is important that the casino attempt to recognize those individuals who are attempting to act in such a manner.

Through this surveillance system this picture can be transmitted throughout the casino. If a person, for

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example, did not present an identification of some sort, the picture itself could be compared to the person to determine whether he or she is a person who should or should not be playing in the casino because of excessive

5   amounts of money spent. In addition, there may be other reasons where surveillance is very important. This system would provide the ability to prevent a known criminal or person who is not desired in the casino from betting in that establishment.

10   The important features and elements of the ATMS 100 in accordance with the transaction tracking are described herein below. The ATMS 100 provides several advantages over the known systems described in Figures 1-4. Firstly, no paper is required; there is no betting slip, no bet

15   rating and the system is completely automated.

In addition, the transaction tracking system allows for tracking not only individual transactions but also (under certain circumstances) allows for the tracking of a particular individual and provides for demographic

20   information and the like. Finally, since the ATMS 100 can interact closely with the casino database, it can provide for fraud detection, surveillance, and the like.

To more particularly describe the advantages of the ATMS 100 of the present invention, refer now to Figures 7

25   through 12 which are flow charts of the various features associated with the pit tracking system of the present invention.

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Figures 7 and 8 are flow charts of the operation of the tracking system when tracking incoming and outgoing player transactions, respectively.

Figure 7 shows how data is entered into the tracking
5   system via step 202. Data can be entered in a variety of ways. For example, data can be entered via a keyboard, a card being read, touching the screen, a pointing device or the like.

Thereafter, the transaction is written locally at the
10   gaming table via step 204. Next, the transaction is written to the host via step 206. A determination is then made as to whether the data has been written to the host, via step 208. If data has not been written successfully, then a flag indicates that the entry is pending via step
15   210. If the write is successful, then a flag indicates that entry is complete via step 212. Thereafter, the player's record is requested via step 214 and the record is displayed via step 216.

Figure 8 is an outgoing player transaction tracking
20   flow chart. The steps are substantially the same as for the incoming player with the exception that at the last step 216' the display is cleared.

The outgoing transaction contains more information of importance to the owner for related player betting patterns
25   and the like, allowing the casino owner to determine ways to ensure that the player will return.

Typical information associated with outgoing transaction tracking includes but is not limited to:

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1.   Player I.D.

2.   In Time

3.   Out Time

4.   Elapsed Time

5.   Average Bet

6.   Total Cash Buckets

   (a)   Money play

   (b)   Marker buybacks

   (c)   Chip buy ins

   (d)   Foreign Checks

7.   Betting Range

The incoming tracking transaction information is utilized to allow for graceful recovery from systems or power failures.

Typical information associated with incoming player transaction tracking includes but is not limited to:

1.   Player I.D.

2.   In time

3.   Average Bet

Through this transaction tracking arrangement, a summary of a player's transactions can automatically be provided to the casino database system or it can be accumulated in the pit area.

There are many types of transactions that may be tracked utilizing the ATMS 100. For example, the head count within the pit area might be tracked over a predetermined period of time. In another example, the

total amount of cash transactions may be tracked or finally marker requests or the like might be tracked.

Figure 9 is a flow chart for tracking these types of transactions. As is seen, the data relating to the transactions are entered, via step 302. This transaction information is written to the local, via step 304, and then written to host, via step 306. Thereafter, a flag indicating that the new information has been entered is updated, via step 308.

BANK ROLL TRANSACTIONS

Bankroll transactions are utilized to ensure that a player and/or game has enough credit or chips to continue play. Before the games run out of chips or credits, the pit boss must stop the games to complete a fill request, which will also halt revenue until a fill request is received. Through the ATMS 100, this is done automatically upon the entry of the proper information into the ATMU. Some typical information related to such transactions are:

GAME NUMBER

GAME TYPE

TOTAL AMOUNT

DENOMINATION AMOUNT

TYPE (CREDIT/DEBIT)

Figure 10 is a flow chart showing the operation of the system for a bankroll transaction. Unless the bankroll transaction information has been written to the host, no further transactions can take place. The data relating to the bankroll transaction are entered via step 402. This

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transaction information is written to the local, via step 404 and then written to the host, via step 406. Next, it is determined if the transaction information has been successfully written to the host, via step 408. If the answer is yes, then the flag indicating that the bankroll is complete is updated, via step 412. If the answer is no, then the bankroll transaction is manually updated, via step 410.

The above-identified transaction tracking is described for illustrative purposes only. One of ordinary skill in the art readily recognizes that there are many other types of transactions that can be tracked and managed in accordance with the present invention.

One of the features of the present invention is to ensure that the casino data base system (host) is in synchronization with the ATMU (local).

Figure 11 is a flow chart for synchronizing the casino database with the ATMU 104.

Accordingly, for each transaction, the ATMU 104 determines if the host (data base) is responding, via step 502. If the host is not responding, then the ATMU 104, via step 504, does nothing further. If the host does respond, the ATMU 104 determines if there are any transactions that are pending via step 506. If there are no transactions pending, the ATMU 104 does nothing further, via step 504. If there are transactions pending, then all the pending transactions are written to the host, via step 508.

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Another feature is the look up function related data base. In this feature, the ATMU 104 can look up and retrieve certain information from the data base and retrieve information to the screen. For example, an individual's name, home address, birth date or the like, that is resident within the data base is obtained and displayed by the ATMU 104. This will allow the casino owner to have increased flexibility when dealing with a particular player.

BET RECOGNITION

At the present time, known tracking systems do not provide an indication of individual bet transactions. Figure 12, is a block diagram of an ATMS 100' which is substantially similar to the system 100 except that it includes a plurality of readers 602 and a trigger mechanism 604 for bet recognition.

Each of the readers 602 responsive to the trigger mechanism 604 provides each of the individual bet transactions of chips 606 or the equivalent, by a particular player.

Figure 13 shows, in a preferred embodiment, a stack of chips 606. The information associated with the transaction is read by utilizing encoding such as a bar code 608 or the like located on the chips 606. It should be recognized that there are a variety of other types of ways that the encoding could take place, which would be within the spirit and scope of the present invention.

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Hence, through the actual tracking of the spending patterns of players, each bet would be recognized. In so doing, many disputes concerning the amount of transactions could be eliminated, particularly in those instances where these transactions are utilized for providing other incentives for the player.

CONCLUSION

Through the automatic tracking and management system in accordance with the present invention, an automatic tracking of a variety of factors can be accomplished. Through this system the tracking is automatic, reduces paper and also provides features that heretofore have not been provided. Accordingly, the system in accordance with the present invention provides many advantages over previously known systems.

Although the present invention has been described in accordance with the embodiments shown, one of ordinary skill in the art will readily recognize that there could be variations to the embodiments and those variations would be within the spirit and scope of the present invention. Accordingly, many modifications may be made by one of ordinary skill in the art without departing from the spirit and scope of the appended claims.

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CLAIMS

1.   A system for the automatic tracking and
management of transactions in a pit area of a gaming
establishment,   the   gaming   establishment   including   a
plurality of gaming tables, at least one of the plurality
of   the   gaming   tables   including   a   transmitter   for
transmitting status information regarding activities in the
pit area, the gaming establishment further including a data
base   containing   status   information   and   means   for
transmitting information to and receiving information from
the transmitter within the gaming establishment; the system
comprising:

means for automatically tracking transactions at the
gaming tables;

means   responsive   to   the   automatically   tracking
transactions means for providing updated status information
to the data base; and

means responsive to the updated status information
providing   means   for   displaying   the   updated   status
information.

2.   The system of claim 1 in which the automatically
tracking means further comprises means for tracking player
transaction information.

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3.   The system of claim 1 in which the automatically tracking means further comprises means for tracking bankroll transaction information.

4.   The system of claim 1 in which the automatically tracking means further comprises means for tracking a head count within the pit area.

5.   The system of claim 1 in which the providing means includes means for synchronizing the status information in the data base with the updated status information.

6.   A system for tracking and management of transactions in a pit area of a gaming establishment comprising:

a plurality of gaming tables; at least one of the gaming tables including a transmitter for transmitting status information regarding activities in the pit area;

a data base for receiving, storing and transmitting the status information from the gaming tables; and

tracking and management means for automatically tracking and managing transactions at the at least one gaming table; the tracking management means further comprises:

tracking means for automatically tracking transactions at the at least one gaming table; and

update means responsive to the tracking means for
providing updated status information to the data base.

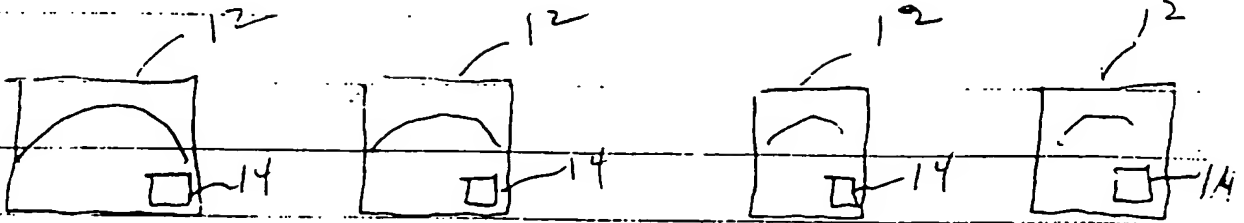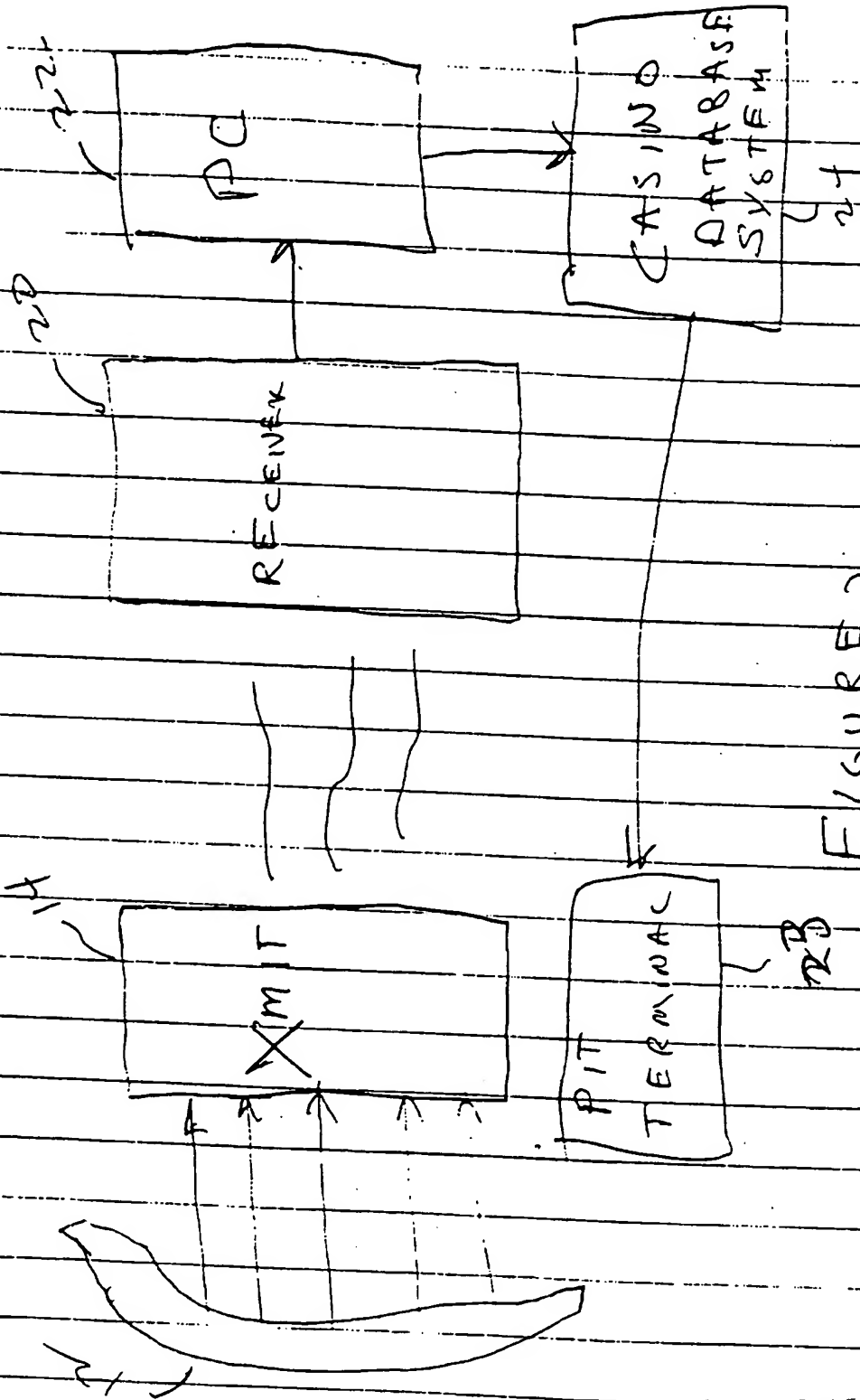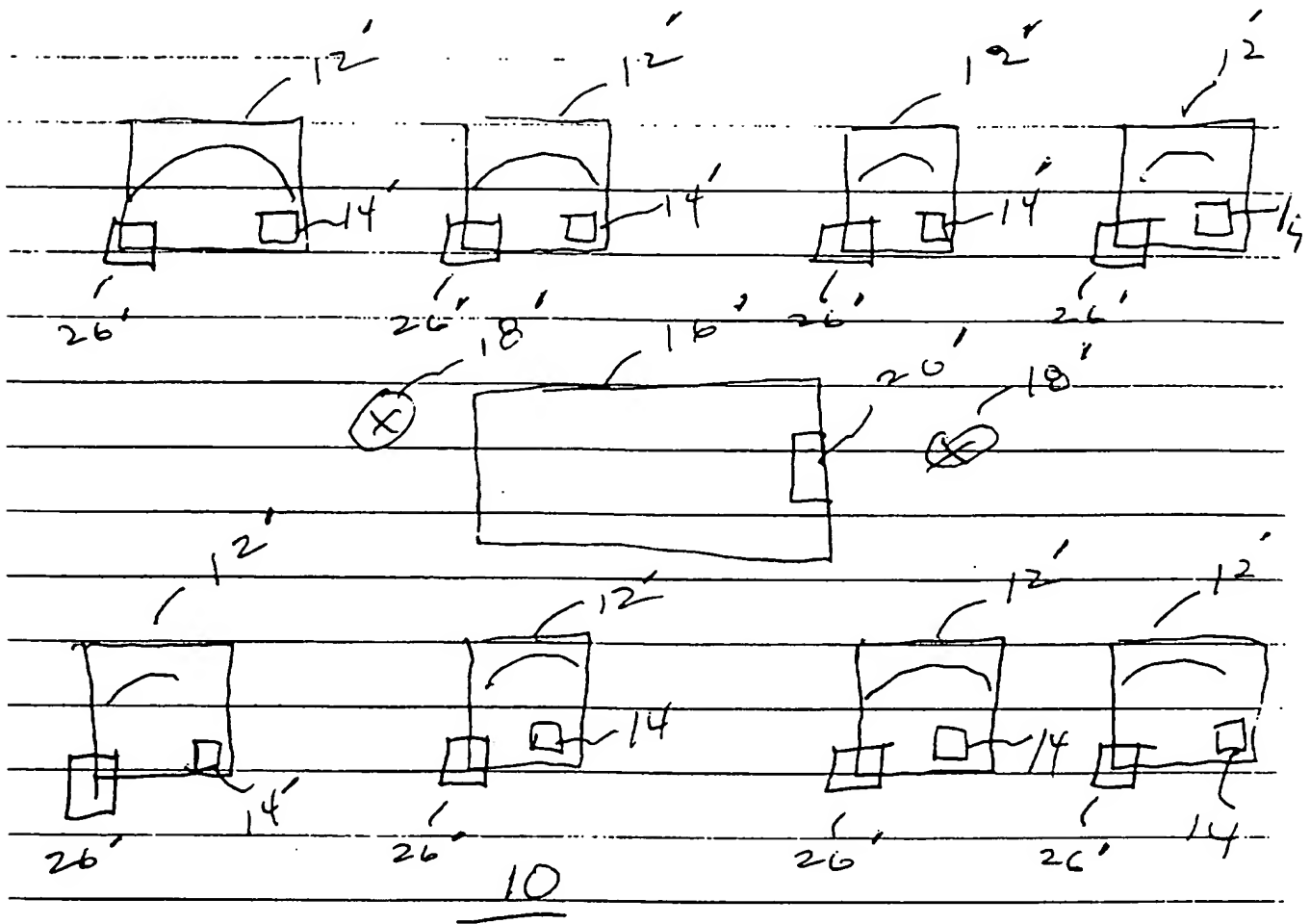7.   The system of claim 6 which further comprises:
screen means responsive to the update means for
displaying the updated status information.

8.   The system of claim 7 in which the tracking means
further comprises means for tracking player transaction
information.

9.   The system of claim 7 in which the tracking means
further comprises means for tracking bankroll transaction
information.

10.   The system of claim 7 in which the tracking means
further comprises means for tracking a head count within
the pit area.

11.   The system of claim 7 in which the update means
includes means for synchronizing the status information in
the data base with the updated status information.
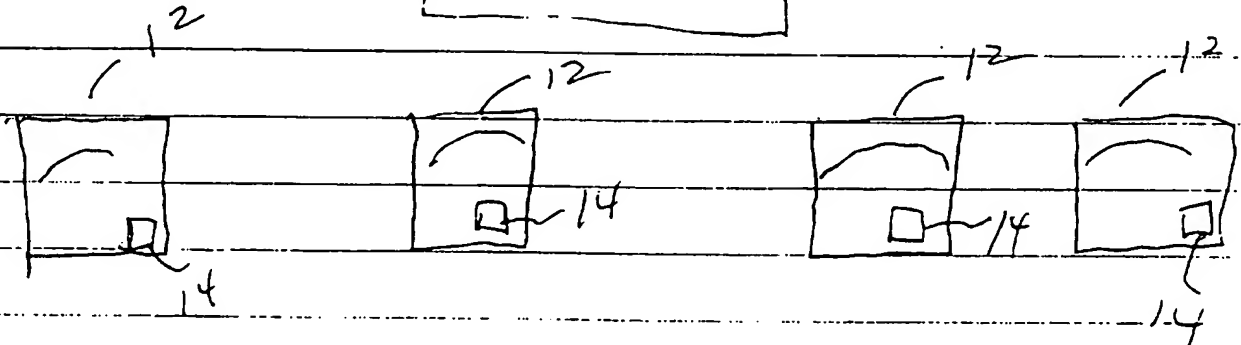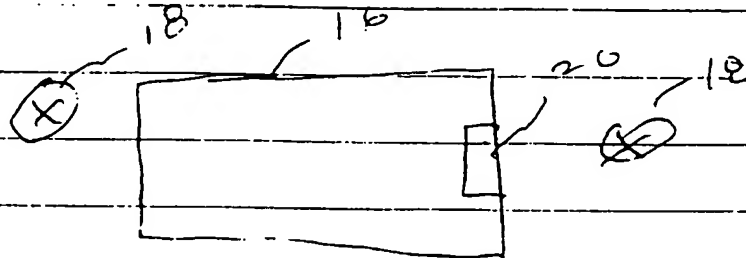
FIGURE 1

FIGURE 2

FIGURE 3
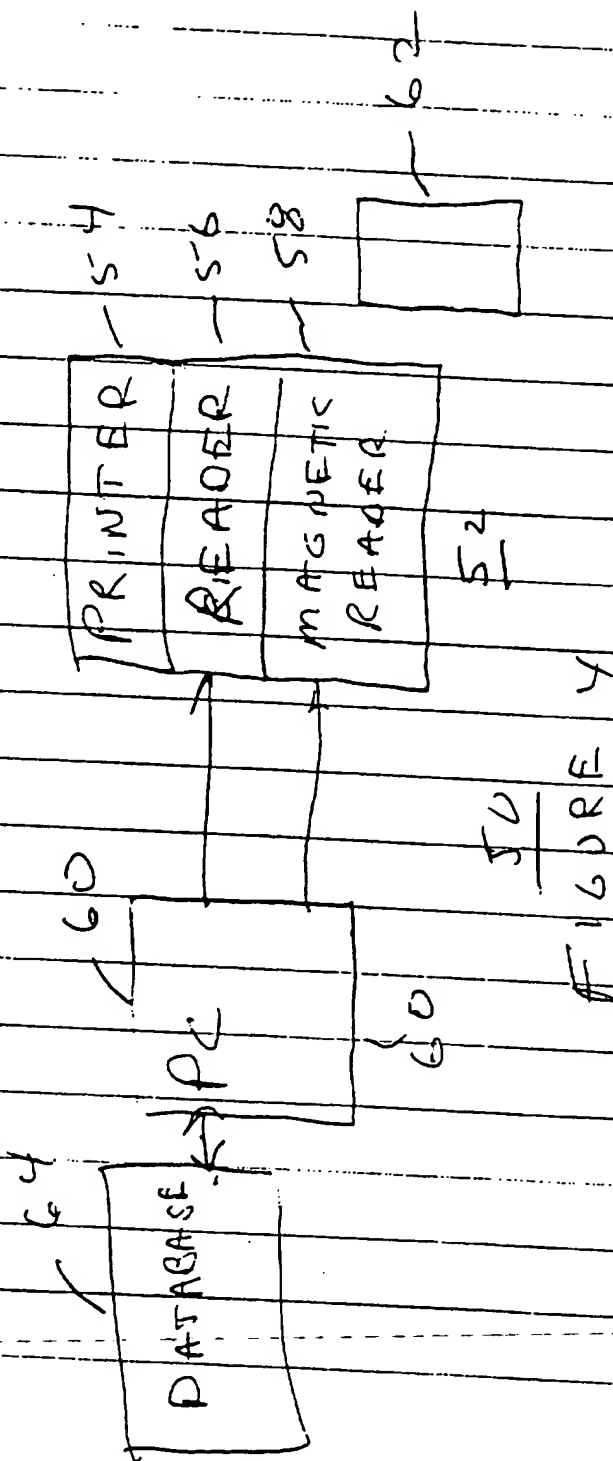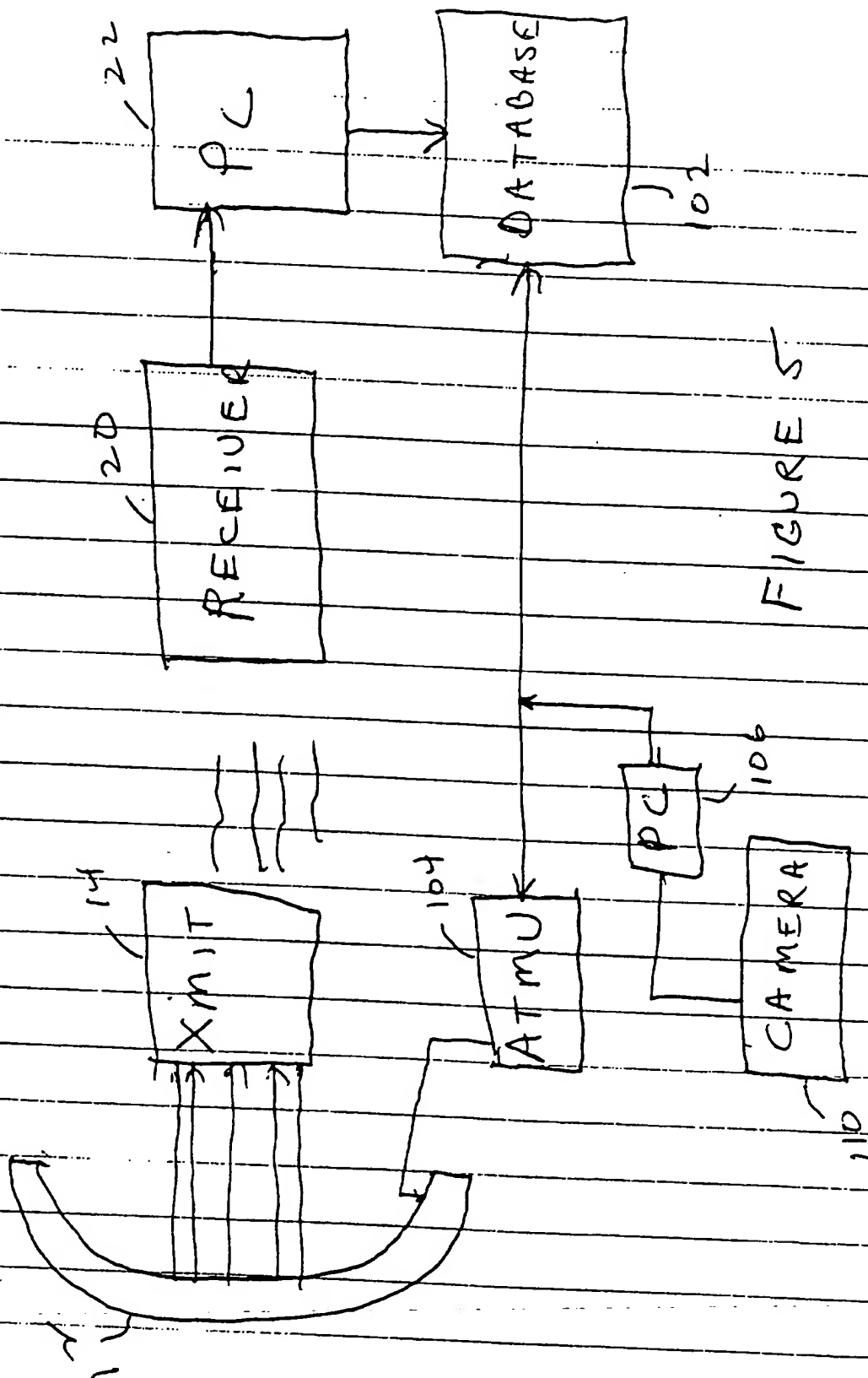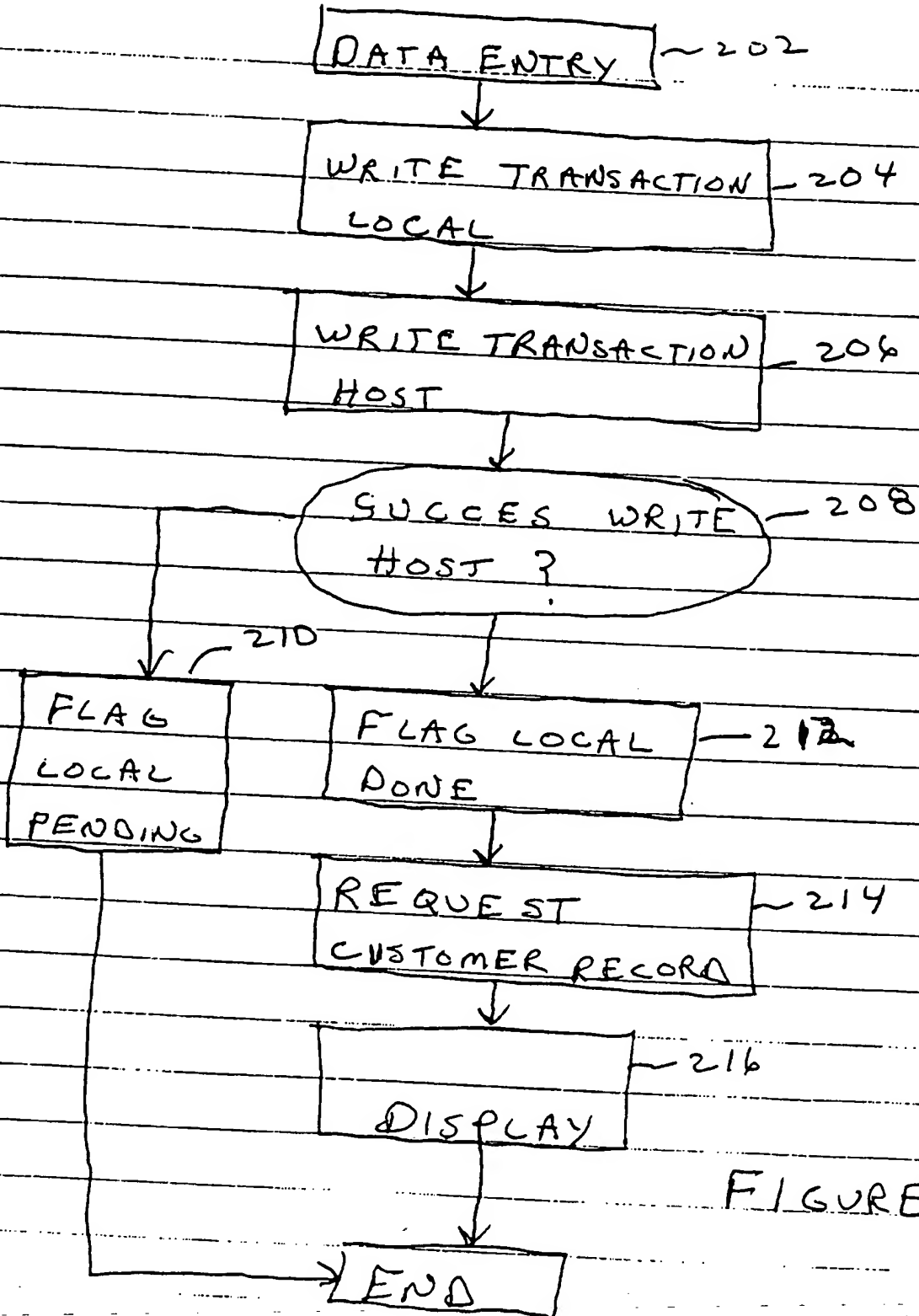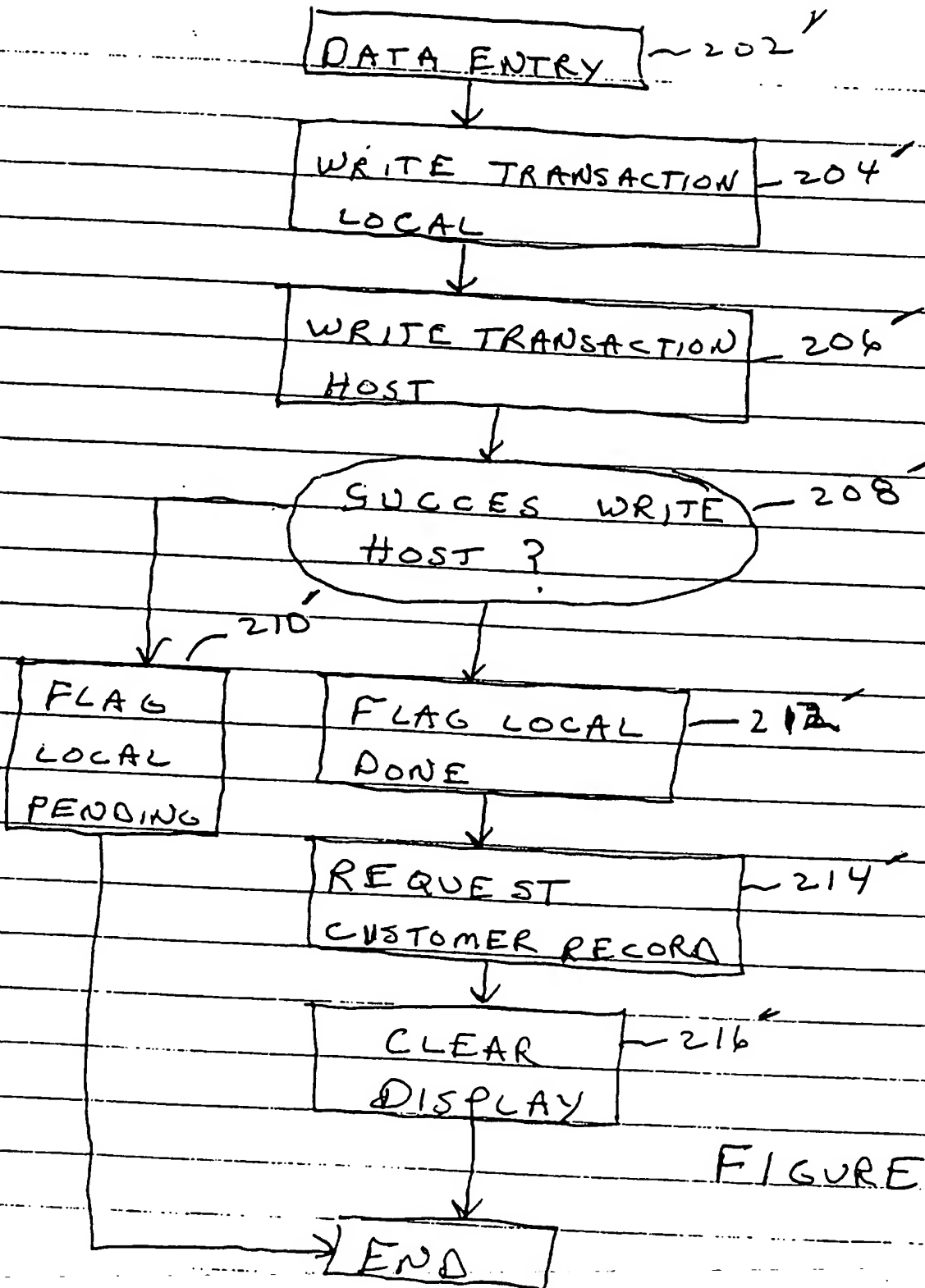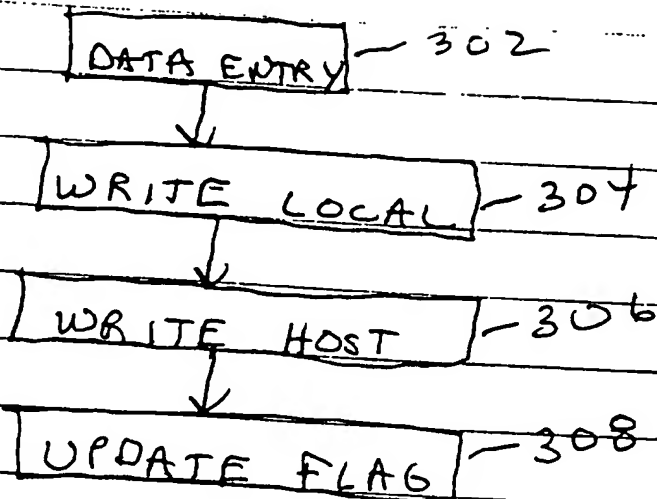
PRINTER 54

READER 56

MAGNETIC READER 58

52

60

DATABASE PC 60

64

FIGURE 4

FIGURE 5

FIGURE 6

DATA ENTRY ~202

WRITE TRANSACTION LOCAL ~204

WRITE TRANSACTION HOST ~206

SUCCESS WRITE HOST ? ~208

~210

FLAG LOCAL PENDING

FLAG LOCAL DONE ~212

REQUEST CUSTOMER RECORD ~214

DISPLAY ~216

END

FIGURE 7

DATA ENTRY ~202

WRITE TRANSACTION LOCAL ~204

WRITE TRANSACTION HOST ~206

SUCCES WRITE HOST ? ~208

210

FLAG LOCAL PENDING

FLAG LOCAL DONE ~212

REQUEST CUSTOMER RECORD ~214

CLEAR DISPLAY ~216

FIGURE 8

END

FIGURE 9

DATA ENTRY ~ 402

WRITE LOCAL ~ 404

WRITE HOST ~ 406

~ 408

SUCCESS? Y

N

MANUAL UPDATE ~ 410

UPDATE FLAG ~ 412

END

FIGURE 10
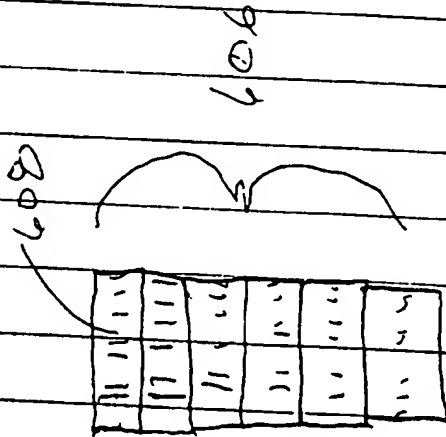
FIGURE 11

FIGURE 12

FIGURE 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US95/10979

A.   CLASSIFICATION OF SUBJECT MATTER

IPC(6)   :GO6F 155:00
US CL   :364/412

According to International Patent Classification (IPC) or to both national classification and IPC

B.   FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. :   364/412; 273/138A; 235/380

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, Dialog Database

C.   DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4,467,424 (HEDGES ET AL) 21 August 1984, see abstract.	1-11
Y	US, A, 4,531,187 (UHLAND) 23 July 1985, col. 3, line 1 to col. 5, line 67.	1-11
Y	US, A, 5,038,022 (LUCERO) 06 August 1991, col. 2, lines 52-68.	1-11
A	US, A, 5159549 (HALLMAN, JR. ET AL) 27 October 1992.	1-11
Y	USA, A, 4,926,327 (SIDLEY) 15 May 1990, col. 2, line 4 to col. 3, line 64.	1-11
Y	LAN Magazine, Volume 7, No. 11, November 1992, Pat Becker, "Gambling LAN", p171(5), entire article.	1-11

[X] Further documents are listed in the continuation of Box C.   [ ] See patent family annex.

*	Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be part of particular relevance	
"E"	earlier document published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	
"P"	document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
03 NOVEMBER 1995	**29 DEC 1995**

Name and mailing address of the ISA/US	Authorized officer
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	GAIL O. HAYES
Facsimile No. (703) 305-9731	Telephone No. (703) 305-9711

Form PCT/ISA/210 (second sheet)(July 1992)*

INTERNATIONAL SEARCH REPORT

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Forbes Magazine, 25 October 1993, David H. Freedman, "Odds Man In", pages 33-35, entire article.	1-11